

July 30, 1999

Ms. Magalie R. Salas  
Secretary  
Federal Communications Commission  
The Portals  
445 12th Street, SW  
Washington, DC 20554

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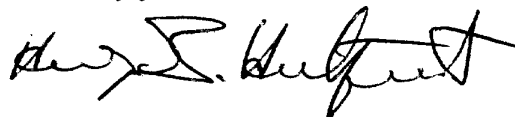
**Re: In the Matter of Number Resource Optimization, CC Docket No. 99-200;  
Connecticut Department of Public Utility Control Petition for Rulemaking to  
Amend the Commission's Rule Prohibiting Technology-Specific or Service-Specific  
Overlays, RM No. 9258; Massachusetts Department of Telecommunications and  
Energy Petition for Waiver to Implement a Technology-Specific Overlay in the 508.  
617, 781, and 978 Area Codes, NSD File No. L-99-17; California Public Utilities  
Commission and the People of the State of California Petition for Waiver to  
Implement a Technology-Specific or Service-Specific Area Code, NSD File No. L-99-  
36.**

Dear Ms. Salas:

Enclosed herewith for filing are the original and four (4) copies of MCI WorldCom's Comments regarding the above-captioned matters.

Please acknowledge receipt by affixing an appropriate notation on the copy of the MCI WorldCom Comments furnished for such purpose and remit same to the bearer.

Sincerely yours,



Henry G. Hultquist

Enclosure  
HGH

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Before the  
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Washington, D.C. 20554

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508, 617, 781, and 978 Area Codes	)	
	)	
California Public Utilities Commission and the People	)	NSD File No. L-99-36
of the State of California Petition for Waiver to	)	
Implement a Technology-Specific or Service-Specific	)	
Area Code	)	

**Comments of MCI WorldCom, Inc.**

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July 30, 1999

## **EXECUTIVE SUMMARY**

During the past three years, it has become apparent that legacy number assignment practices developed in the age of monopoly are insufficient for the development of competition. Area code exhaust and relief, which used to be rare events, have become alarmingly frequent. In these Comments, MCIWorldCom recommends that the Commission adopt policies that will promote more efficient use of public numbering resources in a manner that promotes competition and minimizes costs. Most importantly, MCIWorldCom recommends that the Commission focus its efforts on optimization measures that will enable new service providers to establish their service “footprint” with number blocks smaller than an NXX code.

Significant changes must be adopted and implemented to:

- Ensure that competitors of all types can establish a service area, or “footprint” in each geographic area where they will offer service;
- Apply competitively neutral, nondiscriminatory rules to allow carriers to obtain numbers for growth; and
- Take initial, mid-term, and long-term measures to stem the premature exhaust of area codes from outmoded number assignment policies.

In accordance with these principles, MCIWorldCom recommends:

- Implementation of Unassigned Number Porting, as described herein, as a measure to promote competition and use the numbering resource more efficiently;
- Implementation of thousand-block pooling with initial pools drawn from unassigned NXX codes;
- Expansion of pools through the reclamation of uncontaminated thousand-blocks from assigned NXX codes;
- Adoption of federal rules that provide for uniform, consistent, and mandatory data reporting and auditing. Allow states access to the data of all codeholders as necessary to their oversight of area code relief and pooling;
- No changes to rules that provide for competitively neutral area code relief;
- That the North American Numbering Council begin to develop requirements to separate call rating information the telephone number address as a long-term measure that will promote more efficient use of numbering resources.

In considering these matters, the Commission must avoid false choices. Superficially low telephone number utilization is a symptom of the legacy system's inefficiencies. The Commission must focus on the cause, not the effect. The Commission must develop pro-competitive number assignment practices that enable all service providers to use the public numbering resource more efficiently. It should not establish policies that would prevent some service providers from obtaining numbers that they need to serve customers on the basis of their inability to achieve an arbitrary utilization level.

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### Attachments:

Attachment I: Rate Center Paper, April 1999  
Attachment II: Arizona Petition, April 1999  
Attachment III: Unassigned Numbering Porting

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**Comments of MCI WorldCom, Inc.**

**I. INTRODUCTION**

As we approach the next century, the demand for numbering resources is exploding- a sign that the Commission's decades-old policy of promoting competition in telecommunications has succeeded in driving new services, a diversity of providers, and more uses of telecommunications than ever before. This success demands that the Commission set aside the old policies for assigning numbers, which served well enough in the middle decades of the 20<sup>th</sup> century, in favor of more efficient and competitively neutral mechanisms and practices to support the ongoing competitive revolution in telecommunications.

If numbering resources are to continue to be available to serve the pro-competition policy adopted by Congress in the Telecommunications Act of 1996 and implemented by the Commission, then significant changes must be adopted to:

- Ensure that competitors of all types can establish a service area, or “footprint” in a geographic area,
- Apply competitively neutral, nondiscriminatory rules to allow carriers to obtain numbers for growth; and
- Take initial, mid-term, and long-term measures to stem the premature exhaust of area codes from outmoded number assignment policies.

Numbering assignment must be guided by policy that serves competition, can not exists independently or without regard to competition.

In these comments, MCI WorldCom, Inc. (MCI WorldCom) provides its proposals for pro-competitive policy for number assignment. This plan can be summarized as follows:

- As an initial step, Unassigned Number Porting (UNP) will provide incremental optimization benefits;
- In the mid-term, allow state commissions the ability to retrieve, from Local Number Portability (LNP)-capable carriers, clean thousands-blocks for contribution to existing or new pools in their states;
- Delegate to the state commissions the authority to determine in which NPAs pools should be created. Require each LNP-capable carrier to obtain all subsequent block assignments from the pool. Allow the states to determine how many NXXs should be set aside to meet the need of wireless carriers until they are LNP-capable;



- Adopt new federal rules that provide for uniform, consistent, and mandatory data reporting and auditing. Allow states access to the data of all code holders as part of their delegated authority to implement area code relief and pooling;
- Do not change current pro-competitive rules that address competitively-neutral implementation of area code relief;
- Start the process, through the North American Numbering Council (NANC), to develop the requirements needed to separate call rating information from the telephone number address.

In examining these complex issues, care must be taken to avoid false choices. Premature area code exhaust occurs because of inefficiencies in the assignment and use of NXX codes, not because of inefficiencies in the utilization of telephone numbers. Indeed, inefficiencies in the assignment and use of NXX codes cause the stranding of individual telephone numbers in service provider inventories. Any “solution” to the problem of premature area code exhaust that purports to improve a carrier’s or industry segment’s low telephone number utilization without addressing the underlying reason for low utilization, is doomed to fail. In addition, regulatory specification of utilization levels are not competitively neutral. Mandating a high utilization rate will harm new entrants who are forced, under the existing paradigm to obtain a discrete NXX code of 10,000 numbers for each rate area in which they intend to offer service. The Commission must focus its resources on measures that address inefficiencies in the assignment and use of NXX codes. The Commission must discard proposals that proceed from the erroneous assumption that premature area code exhaust is caused by the willful actions of service providers bent on building and carrying excessively large number inventories. There are no

known data to support such an assumption. More importantly, it flies in the face of reason. Numbers are for customers. No service provider has ever made a nickel from a number stranded in its inventory. A brief review of the facts demonstrates that service provider footprint needs, driven by the rate area paradigm, are the primary cause of rapid area code exhaust. Measures that enable carriers to establish a service footprint with number blocks smaller than an NXX code are the only near-term proposals that remedy the immediate problem in a competitive-neutral way. In the longer term, the removal of rating intelligence from the telephone number address should be accomplished by removing call rating information from the NPA-NXX of each customer. In addition, the Commission should establish a regulatory framework in which, for purposes of inter-carrier compensation, all calls generate identical compensation, *i.e.*, a framework in which a minute is a minute regardless of its point of origin or destination. There can be no doubt that above-cost access pricing relative to local interconnection rates set in a forward-looking economic cost basis, has profoundly influenced new wireline carriers service area and use of numbering resources

## **II. TODAY'S NUMBERING CRISIS IS CAUSED BY ANTIQUATED ASSIGNMENT PRACTICES**

In today's public switched telephone network (PSTN), each ten-digit telephone number serves as a unique network address. At the same time, the first six digits of each number, also known as the NPA-NXX, contain within them information regarding the rating and routing of a call to or, in some cases, from that network address.<sup>1</sup> The Local Exchange Routing Guide, or LERG, serves as the central repository of rating and routing information for each NPA-NXX. When a service provider obtains an NPA-NXX from the Central Office Code administrator, it

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<sup>1</sup> Location Routing Number (LRN) technology, the technology that enables Local Number Portability (LNP) to take place, makes it possible to override the default routing which would otherwise occur based on NPA-NXX.

must activate that code in the LERG. In so doing, the service provider must associate that NPA-NXX with a particular geographic rate area. In turn, all service providers, including local exchange carriers (LECs), interexchange carriers (IXCs), and wireless carriers must periodically receive updated LERG information to ensure the proper rating and routing of calls.<sup>2</sup>

Service providers use LERG information in numerous internal systems that drive not only call rating and routing, but also inter-carrier and customer billing, as well as bill auditing. To date, most carriers that offer local exchange services have adhered to consistent rate areas by matching their rate areas to those of the incumbent. To adhere to consistent rate areas, these new entrants must obtain a block of numbers for each rate area in which they intend to offer service. There are a number of reasons to operate in this manner (regulatory, contractual, technical, etc.), but the choice of consistent rate areas need not restrict new entrants from offering calling plans that differ from those offered by the incumbent.

A significant benefit of consistent rate areas, is that their use permits a clear demarcation of traffic subject to local interconnection rates (*i.e.*, reciprocal compensation) from traffic subject to access charges. Interconnection agreements, established pursuant to sections 251 and 252 of the Telecommunications Act of 1996, govern inter-carrier payments and compensation for the mutual exchange of local exchange traffic. Interstate or interstate access tariffs, however, govern payments to carriers when a “long-distance” or “toll” call is originated or terminated. State regulatory commission orders and, ultimately, the incumbent’s tariffs, define the difference between local and toll calls.

By adhering to consistent rate areas, a competitive local exchange carrier (CLEC) can ensure that all calls made by or to its end users, both within and between rate areas, fall into the

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<sup>2</sup> For a more comprehensive discussion, see Attachment I.

same inter-carrier compensation category, (i.e., reciprocal compensation versus access) as identical calls made by or to end users served by the incumbent carriers. As a practical matter, the terminating carrier determines the compensation category of any call. Thus, a CLEC that adheres to consistent rate areas will utilize its interconnection agreements and access tariff in exactly the same manner that the ILEC does.

Wireless networks, also associate each NPA-NXX with a particular rate area. However, since wireless service is non-geographic, wireless providers need not establish a presence in every rate area. Instead, they have established special compensation agreements with the incumbent wireline providers.

Throughout the country, incumbent carriers have established thousands of rate areas. California alone contains over 800 rate areas. Even Maine, a sparsely populated state, contains over 200 rate areas. Across the country, there are approximately 20,000 rate areas.

The rate area system has always suffered from inherent inefficiencies. The association of each NPA-NXX with a particular rate area, means that the utilization of telephone numbers within any NPA-NXX is ultimately limited by demand for telephone numbers within that rate area. In rural rate areas, many fewer than one thousand numbers might be active at any time, even though each NPA-NXX consists of ten thousand telephone numbers.

For many years, the system functioned adequately despite its inefficiencies. Before 1995, area code exhaust was a relatively rare event.<sup>3</sup> However, in 1995 the system's inefficiencies began to take a toll. Between 1995 and 1998, over one hundred new area codes were assigned within the North American Numbering Plan (NANP). During that period, eighty new area codes

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<sup>3</sup> Between 1984 and 1994, only ten new area codes were assigned within the U.S.

were assigned within the U.S. alone.<sup>4</sup> This exponential increase in the rate of area code exhaust and relief shows no sign of abatement.

What happened to push this inefficient but relatively stable system over the edge? No less than a revolution in telecommunications. The Telecommunications Act of 1996 removed many of the barriers to entry that had protected the ILEC monopoly. Services multiplied and new service providers (e.g., CLECs, PCS) began to make new demands on numbering resources. The removal of legal barriers to entry in local markets gave rise to a new type of service provider: CLECs. In addition, more wireless licenses became available.

### **III. NUMBERING REFORM SHOULD ENABLE NEW PROVIDERS TO ESTABLISH SERVICE FOOTPRINT WITH FEWER NUMBERS**

#### **A. Footprint Is The Key**

As shown above, over the past few years area code exhaust and relief has occurred with unprecedented frequency. Several state commissions have sought additional authority to deal with area code conservation and relief.<sup>5</sup> Meanwhile, NANPA has demonstrated that the accelerated pace of area code exhaust is directly related to the footprint needs of new service providers.

Since the middle of this decade, area codes have exhausted at an unprecedented pace. The North American Numbering Plan Administrator (NANPA) has recently prepared a study that examines the impact of accelerated area code exhaust on the NANP's life expectancy.<sup>6</sup> Since the numbering plan contains only 680 usable area codes, and by the end of 1998, 248 had been assigned, exhaust of the NANP has become a tangible possibility. NANPA projects that if

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<sup>4</sup> North American Numbering Plan Exhaust Study, Submitted By North American Numbering Plan Administration (NANPA) Lockheed Martin CIS, April 22, 1999 (NANPA Exhaust Study)

<sup>5</sup> See , *Common Carrier Bureau Seeks Comment on State Utility Commission Requests for Additional Authority to Implement Telecommunications Numbering Conservation Measures*, Public Notice, DA 99-1198, NSD File No. L-98-136, et al (released June 22, 1999)

no actions are taken to improve the efficiency with which exchange codes are used, the NANP will exhaust sometime between 2008 and 2012.<sup>7</sup>

While there is not uniform industry agreement on the study's conclusions, certain critical issues are undisputed. Most importantly, there is agreement that one variable has a more significant impact on the result than all the others combined: the projection of NXX code demand to meet new service providers' requirements for footprint NXXs. Only by changing this variable does the study produce any significant changes in the NANP's projected exhaust date.<sup>8</sup>

Intuitively, this result makes perfect sense. A service provider that has already established its service footprint will need additional NPA-NXX codes only insofar as demand for that provider's services (e.g., growth) outstrips its inventory of telephone numbers. Any increase in demand for additional or "growth" codes is likely to be relatively consistent and linear (rather than the spike seen with footprint codes needed to enter a market for the first time). Underlying economic and demographic trends will also influence growth codes. However, since each new entrant may require an NPA-NXX for each rate area in which it intends to offer service, footprint or "initial" codes place significantly increased demands on numbering resources when a new entrant decides to enter a market.

The overwhelming importance of footprint demand as a driver of area code exhaust, makes it imperative that the efforts of industry and regulators focus on optimization measures that address the ability of carriers to establish footprints efficiently. Some of the measures for which the Commission has sought comment do have the potential to reduce the footprint requirements of service providers that are new to a given market. These include: thousand block

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<sup>6</sup> NANPA Study

<sup>7</sup> NANPA Study at 2-1.

pooling in conjunction with unassigned number porting, rate area consolidation, and the suggested long run approach that would sever the existing tie between call rating and dialed NPA-NXX. Another approach that regulators cannot ignore is to eliminate the economically irrational difference between access minutes and local minutes. If the geographic origin and destination of a call were irrelevant to inter-carrier compensation, much more extensive rate area consolidation would become feasible than what has proven possible in today's environment. The economics of the public switched telephone network will be far more rational when a minute is a minute.

While some of the measures for which the Commission has sought comment can reduce service provider footprint requirements, others would pretend to raise telephone number utilization directly. For example, the Commission has suggested that it might establish some mandatory utilization level as a prerequisite for a service provider to obtain additional NPA-NXX codes. All this will do is deprive carriers of numbers and create an incentive for carriers to find creative ways of appearing to increase their nominal utilization levels without reducing their needs for additional NPA-NXX codes. The Commission should not pursue, as an optimization measure, any proposal that does not address the problem of footprint demand. Area code exhaust is caused by inefficiencies in the assignment and use of exchange codes, not telephone number utilization rates of new entrants.

## **B. Select an Escalating Set of Solutions**

This evolution of the telephone network finds us today at a turning point: how do we regenerate our public network topology of routing and rating, with origins dating back to

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<sup>8</sup> The above statement is based on MCI WorldCom's understanding of the model as examined by a NANC Ad Hoc Committee.

early this century, into something that will function in a radically different, competitive environment? The Commission must not only determine the most efficient way to accomplish this, it must also do so in a manner that supports its policies to foster competition, is competitively-neutral, and is as transparent to the users of telephone numbers as possible. Different technical solutions present different degrees of technical difficulty and expense. Accordingly, the Commission should not embrace a single solution, but rather it should lay out a path, beginning with the simplest solutions first, and moving to the more technically difficult solutions as quickly as practicable. With each step, the industry will approach its destination of an efficient number administration structure that allows customers to obtain the number of their choice from the carrier of their choice.

For this reason, MCI WorldCom offers the Commission a proposal to accomplish the Commission's objectives: impose the least societal cost possible in a competitively neutral manner while obtaining the greatest benefit; ensure sufficient access to numbering resources for all service providers and to avoid premature exhaust of the NANP.<sup>9</sup> Our plan will allow for the quickest, most effective pooling process that can be implemented over the next year. It also provides a strong foundation for future and additional reform. First, establishing pools cannot happen simultaneously across the country, nor can it happen overnight. Attempting such a feat will create an unstable network environment that threatens network reliability. Pooling is best implemented in phases. The phases we recommend bring pooling to life in a simple and relatively fast manner that will produce immediate progress in slowing down NXX demand and, by extension, NPA exhaust. In the first phase, pools should be created using new, unassigned NXX blocks; the second phase should allow for reclamation of clean thousand blocks in already

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<sup>9</sup> Notice at para. 6.



assigned NXXs. In addition, the Commission should mandate that carriers participate in UNP.<sup>10</sup>

UNP can be implemented immediately and does not need any new software or systems. Nor does UNP put network reliability at risk. UNP is a perfect substitute for an attempt to achieve a “contamination level” that is neutral and optimizes access to stranded resources.

To be successful, pooling must be supported by national rules and standards:

- The Commission must set the initial schedule of pooling, then allow the states to maintain pooling and establish subsequent pools.
- The NANC recommendation for pooling administrator and national pooling guidelines should be adopted by the Commission;
- All LNP-capable carriers will participate in pooling, including CMRS when they become LNP-capable;<sup>11</sup>
- CMRS carriers will meet their November 2002 deadline and support pooling;
- Pooling should not drive LNP deployment;
- No switch should be granted a permanent waiver from supporting pooling;
- Industry recommendation for NPAC software must be utilized to facilitate national pooling the LNPAs; *i.e.*, NPAC 3.0 software with EDR is deployed, tested and readily available in all the NPACs;
- Cost recovery for pooling must be decided.

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<sup>10</sup> UNP is the process of porting unassigned numbers from one carrier to another using LNP.

<sup>11</sup> MCI WorldCom opposes any changes to the rules that govern LNP deployment. LNP should be deployed where it is required to allow fair competition. In areas outside the one hundred largest MSAs, it is appropriate to wait for a request from a competing carrier. If no carriers have sought LNP, then it is unlikely that NXXs are needed to provide service footprints for new entrants. Since the footprint needs of new service providers are the most important factor in premature area code exhaust, it follows that where LNP has not been requested, the resource is unlikely to be strained by the footprint needs of new service providers.

There is little debate that pooling will improve the inefficiency inherent in the current number assignment process (*i.e.*, minimum 10,000 block needed for footprint) which leaves carriers with telephone numbers they neither need nor want. However, it is unrealistic to expect that all aspects of the eventual pooling structure can be implemented at the same time. MCI WorldCom recommends that the Commission develop the initial deployment schedule, using input from the states, to implement pools with unassigned NXXs in existing NPAs and future NPAs. MCI WorldCom recommends that they schedule not allow pools to be created in more than two NPAs, per NPAC region per month.

### **C. Implement Thousands-Block Pooling First With Unassigned NXX Codes**

The benefits of implementing pools with unassigned NXXs are threefold: (1) it will immediately reduce the footprint inventory requirements of new LNP-capable entrants, as well as LNP-capable entrants in the process of expanding their service areas; (2) it will make available more numbers for assignments in NPAs where lotteries exist; and (3) it will also accelerate the creation of rate area pools because pool creation is not dependent on carriers contributing previously-assigned blocks to each rate center pool.<sup>12</sup> NXX codes will still need to be reserved for non-LNP capable carriers, wireless and paging carriers and some independents.<sup>13</sup> These first pools should be created in NPAs where LNP is available, according to a national schedule for initial deployment, using unassigned NXXs.

MCI WorldCom recommends that pooling be allowed in all NPAs where LNP is already deployed. We do not believe it is necessary to require LNP to be deployed to implement

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<sup>12</sup> The Commission should be aware that the application of existing per telephone number LNP charges to pooled blocks, may cause the price of pooling to increase rapidly.

<sup>13</sup> Unless the Commission changes its requirements for wireless carriers before the current November 2002 deadline, NXX codes will still have to be set aside for wireless carriers until these carriers are LNP-capable. However, the Commission should ensure that ALL carriers that seek numbering resources be capable of obtaining those resources in thousand blocks. Hence, this separate set aside from wireless carriers is only temporary.

pooling. Demands on numbering resources due to carrier's footprint requirements needs are greatest in major metropolitan areas. LNP has already been deployed in those areas.

Initial deployment of national pooling cannot happen overnight and requires national coordination. While state commissions, under delegated authority from the Commission, may be best positioned, to determine certain issues associated with pooling, the initial deployment is best set with one national schedule. This will ensure that network activity in the seven NPAC regions is balanced, coordinated, and monitored for potential problems. The schedule should first allow a trial of the pooling architecture using the new NPAC release 3.0 as the first step. MCI WorldCom has previously suggested that Florida be selected to conduct such a trial.<sup>14</sup>

MCI WorldCom realizes that many states are anxious to implement pooling as quickly as possible. The process of establishing rate center pools places a significant systems, database and process burden on all providers. This is due to the substantial increase in porting activity required to establish pools. MCI WorldCom however, recommends that the Commission limit initial pooling deployment to two NPAs in each NPAC region per month. Not only will this gradually increase the activity on carriers' networks so that switches and LNP databases are not overloaded, but it will also constitute a better use of the limited resources of the NPAC organization. We further recommend that the Commission ask the state commissions to provide a list of NPAs in their states in which they would like to see pooling first deployed.<sup>15</sup> Next, the Commission should either conduct a lottery from each NPAC region or establish neutral criteria to develop a schedule for the first nine months of pooling deployment. Once the initial pools are

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<sup>14</sup> See MCI WorldCom Comments at 11 in response to *Florida Public Service Commission's Petition for Authority to Implement Number Conservation Measures*, NSD File no. 99-33 (released April 15, 1999) (Florida Petition)

<sup>15</sup> The NPA should not be near exhaust. That is, have few clean NXX blocks left for assignment.

established and activity slows, the Commission should delegate to the states the authority to establish pools in additional NPAs.<sup>16</sup>

The Commission also seeks comment on various issues with sequential number assignment.<sup>17</sup> For numbering administration purposes, sequential number assignment is an attempt to preserve clean thousand-blocks for pool establishment. The earlier in the life of an NXX such an assignment practice is followed, the more likely it is that clean blocks will remain to establish a pool.

**D. Phase-in Additional Pooling to Reduce Demands Placed on Numbering Resources**

Phase Two of the MCI WorldCom proposal would require code holders to return clean thousand-blocks for the NPAs in which pools were created in Phase 1.<sup>18</sup> Since this Phase will require carriers to review their inventories for clean blocks, we believe that establishing the pools with unassigned block first, and then adding these clean thousand blocks, permits pooling to occur in the quickest, most efficient way possible.

By the end of Phase 2 there will be pooling in each rate area in each NPA chosen by each state commission. The pools will consist of resources from unassigned NXXs and the contributions of carriers with clean blocks. These two steps should significantly reduce, going forward, footprint demands of new service providers. As the wireless carriers activate LNP, they should begin to accept thousand-block assignment. In addition, they should review their inventories and return clean thousand blocks.

Having pools established in all areas where LNP has been implemented will contribute to more efficient use of numbering resources. It will provide immediate benefits to consumers,

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<sup>16</sup> To gain the greatest number optimization benefits from pooling, a pool must be established early in the life of an NPA when there are the most clean NXX blocks.

<sup>17</sup> Notice at para. 190-191

businesses, service providers, and state commissions that are under extreme stress from today's unprecedented pace of NPA exhaust.

MCI WorldCom disagrees with the industry recommendation of using already assigned blocks that have no more than one hundred numbers assigned in a consecutive thousand-block (*i.e.*, 10% contamination level). We, instead, believe that unassigned numbering porting (UNP), which can be used today, will provide access to stranded blocks of numbers. Pooling, along with UNP, will lead to more efficient number use. Thus, there will be diminishing benefits from the recovery of contaminated blocks. There is no scientific methodology for setting a contamination level below which a block would be returned. Using contaminated blocks presents practical and policy challenges. Care must be taken to accurately identify numbers in use within contaminated blocks. To ensure call completion for these customers from the networks of all service providers will require significant efforts, including intra-service provider porting. If there is widespread contamination of blocks, it is quite likely that some customer numbers will "fall through the crack." The industry did not use any mathematical formula to derive the 10% level used in Illinois. The Commission can pick 20%, 35%, or 50% with no more insight than the industry exercised when it chose 10%.

Instead of arbitrarily determining a "contamination level," it makes more sense for the Commission to order a study of stranded numbers after pooling is initially implemented and the Commission's new requirements for data reporting and COCUS go into effect. Such a study should examine the inventories of each code holder type and develop a model of how each code holder type uses numbers and how many available numbers are actually "stranded." Based on

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<sup>18</sup> Less the allowable service provider inventory of six to nine months, as recommended by the industry.

such a study, the Commission could determine whether it is worthwhile to proceed to the complex task of reclaiming contaminated blocks.

Lastly, the Commission asks for comment on the viability of Individual Telephone Number (ITN) pooling as a potential long-run conservation measure. As the NANC and most parties recognize, implementation of ITN pooling would require a significant amount of time and resources. ITN pooling would have the potential to increase the efficiency with which NXXs are utilized, since service providers could receive numbers virtually on an as-needed basis. It is unclear at this time, however, whether the incremental conservation benefits of ITN pooling would justify the costs associated with its implementation. It is premature to conclude that ITN should be adopted as a pooling method. Instead, the industry needs to evaluate the costs and benefits of ITN pooling after implementation of other, more quickly achievable measures.

**E. Accepting the NANC Recommendation for Pooling Administrator Will Advance Pooling Six to Eight Months.**

MCI Worldcom supports the NANC recommendation to award the pooling administration function to Lockheed Martin, the current NANPA vendor, for the remainder of the NANPA's current term. Sole source procurement with the NANPA will advance pooling implementation and operational readiness by six to eight months, which is critical to managing the numbering crisis.<sup>19</sup> Also, this position takes into consideration the synergies between the NANPA CO Code and pooling administration functions. Further, MCI Worldcom recommends that the Commission direct the NANC to begin planning the next NANPA procurement in the very near future.<sup>20</sup>

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<sup>19</sup> No time will be spent developing requirements and reviewing various bids

<sup>20</sup> The current contract with CIS will expire in 2003. It is expected that NANC will conduct another competitive bid process.

**F. Pooling Impacts on Public Safety Systems Are Manageable.**

The public safety impacts for number pooling are no different from LNP. Pooling does not introduce any new public safety concerns. Issues such as carrier coordination or communication regarding locking/unlocking of the database can be addressed by developing procedures for communication or by design changes. To address any concerns, 911 database administration can be designed to recognize number ownership at the block level as it now recognizes ownership at the NXX level. Thus, there is no ownership issue regarding unlocking/locking the database. Further, block pooling uses the same LRN technology as LNP. Downstream processes, used to create a customer's account and provide information to other internal billing and tracking systems, are identical regardless of whether the number comes from a conventional NXX assignment or a pooled block.

**IV. UNASSIGNED NUMBER PORTING IS A HELPFUL TOOL THAT CAN BE USED NOW**

In addition to the implementation of number pooling as described above, MCI WorldCom strongly encourages the Commission to order unassigned number porting (UNP) using the implementation methodology described below. UNP can be implemented prior to pooling, provides substantial competitive benefits and allows access to numbering resources that pooling alone would strand in carrier inventories.

Currently, the incumbent carriers enjoy a competitive advantage by virtue of its control over a significant portion of the numbering resource. The incumbent is considerably more likely than its competitors to be able to fulfill customer requests for specific numbers. UNP, however, allows carriers to begin sharing numbering resources at the individual telephone-number level. With UNP, all carriers would have a more equal ability to fulfill customer requests for specific

numbers, since all carriers would be able to port the requested numbers from the inventory where they reside. UNP helps to level the competitive playing field by eroding the competitive advantage that the incumbent would otherwise enjoy.

UNP is a significantly pro-competitive policy that can also yield substantial number conservation benefits through its use as a surrogate for footprint NXX assignments. UNP can actually be implemented sooner than pooling. MCI WorldCom has recommended a phased implementation of UNP. The first phase can be implemented immediately using existing systems and processes.

UNP consists of the movement of telephone numbers available for assignment from one carrier to another using the LRN technology and inter-company processes associated with permanent LNP.<sup>21</sup> UNP would be used to move a number available for assignment from one service provider's inventory to that of another. MCI WorldCom sees UNP as substantially more robust than the description in the NRO report.<sup>22</sup> The NRO's description of UNP limited its use to situations where carriers entering a market could not get NXX code resources during an extreme jeopardy environment. There is no technical reason for such a limitation.

Although UNP can be described as having three distinct phases, MCI WorldCom is focusing on Phase 1 that is the most appropriate use of UNP and can be implemented immediately. The latter phases describe number resource optimization measures that would take longer to implement.

UNP Phase 1 would consist of carrier-to-carrier requests for the porting of specific numbers. These requests would occur using the same inter-company processes that today allow

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<sup>21</sup> That is the Local Service Request (LSR) form developed by the industry for LNP

<sup>22</sup> See *Number Resource Optimization Working Group (NRO) Modified Report to the [NANC] on Number optimization Methods*, Section 6 (October 20, 1999) (The NRO Report)



for conventional ports of customer telephone numbers. The characteristics of the desired numbers would be described in the remarks section of the local service request (LSR) form and the actual telephone numbers to be released would be noted on the order confirmation (FOC) form. Attachment III describes what we envision to be a workable implementation process for UNP Phase 1 implementation.

Phase 1 implementation can rely on manual processes similar to those used for LNP. If electronic processing of LSRs/FOCs is used between carriers today, then those carriers would have to agree upon an interim electronic process until requisite Ordering and Billing Forum (OBF) national changes are made and implemented.

The first phase of UNP could be used in a number of situations. Each potential use would yield pro-competitive benefits. By allowing greater access to assigned NXX codes, each use would also improve the efficiency with which numbers are used.

The initial use of UNP would allow customers who had ported their telephone numbers to request additional numbers for growth drawn from the NPA-NXX codes that match their current ported numbers, but that the customer may not have reserved before her or she ported to another carrier. Another use of UNP would enable service providers to offer trial service to the customers of other providers with numbers drawn from the same NPA-NXX as those customers' existing numbers. Still another benefit from UNP is to allow customers, where an overlay has been implemented, to obtain an additional number in the same NPA or NPA-NXX as that customer's existing numbers. Although MCI WorldCom does not foresee any reason to limit the volume of numbers that could be requested in response to a specific customer request, the volume of these requests should be modest and manageable.